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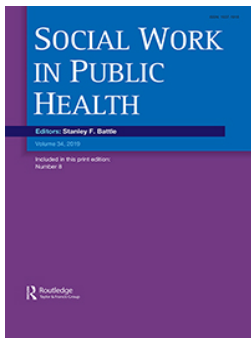
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# “The Bottle Is My Wife”: Exploring Reasons Why Men Drink Alcohol in Ugandan Fishing Communities

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## ABSTRACT

Fishing communities in Uganda have high rates of excessive alcohol consumption and negative health outcomes related to alcohol consumption, such as HIV acquisition and transmission and intimate partner violence victimization and perpetration. Research lacks understanding of alcohol use in Ugandan fishing communities, underlying reasons for excessive drinking among fishermen or how their community perceives negative health outcomes linked to excessive alcohol consumption. This qualitative study was conducted among Ugandan fisherfolk to determine why excessive alcohol consumption has overtaken their communities. Through analyzing in-depth interviews and focus group discussions, reasons for drinking and community perceptions of drinking were explored using the Socio Ecological Model and the Time Perspective Theory. Interviews were coded into two content themes: social influences on drinking and using alcohol to cope with stress. Participants acknowledged links between excessive alcohol consumption and negative health outcomes within their families and communities. These findings highlight the need for alcohol-related reduction interventions that are sensitive to contextual factors and self-identified contributors to problematic alcohol use within individuals and their communities. Such interventions must consider the social, ecological and economic conditions within fishing sites, focusing not only on individual-level behavioral change but also challenging the underlying structures that foster excessive alcohol consumption.

## KEYWORDS

Alcohol use; alcohol consumption; socioecologic model; fishing communities; fisherfolk; social ecological model; Africa; qualitative research; time perspective theory

## Introduction

According to the World Health Organization (WHO), Africa bears the heaviest global burden of disease and injury attributed to harmful alcohol use (World Health Organization, 2018). The WHO defines harmful alcohol use as a pattern of drinking that has negatively impacted the health of others or caused damage to a person's own physical (e.g., liver damage) or mental (e.g., depression related to drinking) health (Babor & Higgins-Biddle, 2001). In 2016, harmful use of alcohol resulted in approximately three million deaths worldwide and 132.6 million disability-adjusted life years (DALYs). In 2016 alcohol contributed to more deaths than tuberculosis, HIV/AIDS and diabetes globally (World Health Organization, 2018).

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Uganda is estimated to have one of the highest national alcohol consumption rates in sub-Saharan Africa. In 2016, the total alcohol per capita consumed in the country was 26 liters among all drinkers; 33 liters among male drinkers and 13 liters among female drinkers (World Health Organization, 2018). It is posited that alcoholic beverages have been made and consumed throughout Africa for longer than data is available. Fermented drinks were originally served as a source of vital nutrients; they continue to be consumed for vital nutrients and other reasons throughout Africa, including in Uganda. Today, all of Uganda's traditional alcoholic beverages (e.g., traditional brew or *tonto* or *mwenge bigere*, and *ajon or malwa*, an alcoholic beverage made from finger millet) are still produced at subsistence levels (K4Health, 2017; Myadze & Rwomire, 2014).

There is an established evidence base on the reasons people drink; the main theories help us understand some general motivators for alcohol use in Uganda (Abbey, Ross, McDuffie, & McAuslan, 1996; Haberman, 1970; Mulford & Miller, 1960). One theory suggests people drink because of social influences (i.e., to enhance sociability, for enjoyment, to celebrate) (Mulford & Miller, 1960). Research from Uganda supports this idea, revealing that men often consider social drinking an ideal way to bond with friends, have a good time and meet women (Bonnie E et al., 2019). It is also theorized that people drink to cope with stress, escape problems and/or regulate their emotions (Mulford & Miller, 1960). Studies from Uganda and other parts of Africa confirm people, especially men, have long relied on homemade brews to cope with the physical and psychological stress associated with hard manual labor, including working in the fishing industry (Bonnie et al., 2019; Myadze & Rwomire, 2014; Sileo, Kintu, Chanes-Mora, & Kiene, 2016). A third theory suggests drinking is a common component of rituals (Mulford & Miller, 1960), such as weddings and funerals, and in Uganda, home brewed alcohol has been identified as an essential part of religious functions and family gatherings (Bonnie et al., 2019).

Understanding these trends and motives for drinking offers insight into the historical relationship between Ugandans and alcohol, and can help identify the patterns of drinking that produce risk. While certain agencies, such as the Department of Health and Human Services, have postulated that alcohol use does not necessarily constitute a problem and that drinking moderately (i.e., one standard drink a day for women and two for men) can decrease mortality and reduce risk of non-communicable diseases such as stroke (O'Keefe, Bhatti, Bajwa, DiNicolantonio, & Lavie, 2014; Smyth et al., 2015; U.S. Department of Health and Human Services, & U.S. Department of Agriculture, 2015), others dispute this claim and argue that the safest amount of alcohol consumption for one's overall health is no consumption at all (Collaborators, 2018). Estimates from Uganda suggest most drinkers in the country are "low risk," meaning their alcohol consumption is within legal and medical guidelines and is not likely to result in alcohol-related problems (World Health Organization, 2018).

Regardless, alcohol *does* contribute to diseases and injury-related health conditions in Uganda, most likely due to harmful consumption patterns such as excessive drinking, which is defined as having four or more drinks on any day, or 8 or more drinks per week for women and 5 or more drinks on any day or 15 or more drinks per week for men (U.S. Department of Health and Human Services). Excessive drinking increases mortality and morbidity rates, including the risk of HIV transmission and acquisition and both experiencing and perpetrating intimate partner violence (IPV) (Organization, W. H., 2002; Scott & Kaner, 2014; U.S. Department of Health and Human Services & U.S. Department of Agriculture, 2015; Zablotska et al., 2009). It is estimated that four percent of the global burden of disease is related to excessive drinking (Room, Babor, & Rehm, 2005; U.S. Department of Health and Human Services, & U.S. Department of Agriculture, 2015). In Uganda, positive relationships have been found between alcohol consumption and breast cancer risk (Qian et al., 2014), esophageal squamous cell carcinoma (Okello et al., 2016), and alcoholic liver disease (Opio et al., 2013). Research has also revealed that alcohol use is significantly associated with increased risk for HIV infection and IPV against women and girls in Uganda (Zablotska et al., 2009, 2006).

Uganda's fishing communities along Lake Victoria have some of the highest rates of alcohol use in the country (Kiwamuka et al., 2014; Tumwesigye et al., 2012). One study from two fish landing sites on Lake Victoria found that harmful alcohol use was common, with 62% of male and 52% of female drinkers reporting harmful levels of consumption in the prior 30 days (Tumwesigye et al., 2012). Consumption of

alcohol in Uganda's fishing villages has been significantly associated with increased HIV incidence, HIV prevalence, IPV victimization, IPV perpetration and increased sexual risk (e.g., transactional sex, inconsistent condom use) (Odongkara, 2001; Tumwesigye et al., 2012; Zablotska et al., 2009). A recent community-based cohort study of HIV-negative Ugandan adults from eight fishing communities along Lake Victoria found 54% drank alcohol and 64% of new HIV infections were attributed to alcohol consumption (Kiwauka et al., 2014).

While it is known that alcohol use is prevalent in Uganda's fishing communities, and associated with adverse public health outcomes (e.g., HIV infection and IPV), there is limited understanding of the underlying reasons for drinking among fishermen and community-level perceptions of how alcohol contributes to negative health outcomes, including HIV infection and IPV perpetration and victimization. There is also limited understanding about the way in which Ugandans, overall and in the high alcohol prevalence settings of fishing communities, recognize the differences between harmful and low-risk alcohol use. Although recommendations for "minimum risk" drinking exist in many countries, there are none in Uganda. Thus, Uganda has no guidelines to advise people on what a standard drink is or which levels of alcohol consumption are considered "safe," "responsible," or "low-risk" ("Alcohol in Moderation (AIM)," 2018). Further, no advice is available (for possible harms related to alcohol use) for particularly high-risk populations such as fishing communities.

This paper presents findings from a qualitative study that examined how alcohol consumption has become a dominant shared practice of fishermen and community members in three fishing sites along the border of the Rakai and Masaka Districts and the shore of Lake Victoria in southwestern Uganda. The overarching goal of the study was to understand men's reasons for drinking alcohol, particularly at harmful levels. The authors also aimed to distinguish between patterns of drinking and types of risk, to inform on how the health needs of different types of drinkers could be matched to the most appropriate interventions. All research tools were created to enable deep exploration of participants' personal reasons and motivations for drinking currently, in the past and their thoughts on alcohol consumption in the future, taking into consideration the social, ecological and structural factors that may influence their opinions, behaviors and their readiness for behavior change.

## Materials and methods

### *Selection and description of participants*

This study used qualitative research methods to collect data from men and women during focus group discussions and individual in-depth interviews. All participants provided written informed consent. The study was approved by institutional review boards in Uganda (the Research Ethics Committee of the Uganda Virus Research Institute and the Uganda National Council for Science and Technology) and the United States (the University of California San Diego Human Research Protections Program).

All research was conducted between October 2016 and January 2017 by the Rakai Health Sciences Program (RHSP), an HIV research and service provision organization in Rakai District, Uganda. All focus group discussions and in-depth interviews were conducted in the local language of Luganda by members of RHSP's Social and Behavioral Sciences Department. Participants were compensated 10,000 Ugandan shillings, equivalent to \$2.73 USD, for their time.

### *Setting*

This study was conducted in three fishing communities (Ddimbo, Malembo and Namirembe) in the Rakai region. Alcohol use is common among women (34%) and men (51%) in Rakai's fishing communities and the median HIV prevalence is 41% (Chang et al., 2016).

Although only a small number (130,000) of Uganda's total population of thirty-nine million people (Institute of Medicine, 2003) live in fishing communities, they are important hubs of employment, trade and commerce. It is estimated that the fishing sector provides employment for 2.5% of the national

population (Institute of Medicine, 2003). The fishing sector offers various occupations, including fishing, fish trading and fish processing. While fishermen are mostly male, both women and men work as traders and processors (Westaway, Seeley, & Allison, 2007). Additionally, female and male service providers have established themselves along the shores, working in bars and lodges. Some women also engage in commercial sex work (CSW) (Seeley, Tumwekwase, & Grosskurth, 2009; Sileo et al., 2016).

Key characteristics of fishermen in Uganda include their highly mobile pattern of work and living. It is common for fisherfolk to travel between landing sites and temporary fishing camps; they rely on casual work and labor opportunities where and when they are available (Institute of Medicine, 2003). It is posited that the frequent migration of fishermen has contributed to a degradation of traditional kinship ties and a pattern of changing demographics in these communities. At the same time, some research suggests population size is increasing at various landing sites, specifically in Rakai (Fisheries Training Institute (FIT), 2004), indicating more Ugandans are seeking employment in the fishing sector (due to its ability to provide a fairly steady income) and that fishing communities are becoming increasingly permanent. Overall, however, the transitory nature of fishing communities has led to the formation of new cultural environments, marked by more casual interactions and fewer committed relationships; less priority on family and domestic responsibilities; and more emphasis on enjoyable activities, including alcohol consumption (Beuveng, 2010; McArthur, Birdthistle, Seeley, Mpendo, & Asiki, 2013; Pearson et al., 2013; Seeley et al., 2012).

### **Participants and setting**

Participants included RHSP staff and community advisory board members, a subset of respondents from the Rakai Community Cohort Study (RCCS), and community members who were contacted and recruited via community mobilizers. The RCCS is an ongoing, longitudinal HIV surveillance cohort that has been operated by RHSP since 1994. Details about RCCS have been previously published (Wawer et al., 1998, 1999). Briefly, the RCCS administers behavioral survey questionnaires and collects biological samples for HIV testing every 10–14 months from all consenting adults (aged 15–49) living in 54 communities in Rakai District, Uganda. A census precedes these activities and involves approximately 28,000 residents across the 54 communities. The quantitative survey that follows the census collects information on health and health seeking behaviors, including sociodemographic, behavioral, health and HIV statuses, sexual network information, alcohol use, and history of IPV perpetration and victimization.

The sample for this qualitative study included 195 men and women. We conducted 15 focus group discussions with 145 participants. Groups were stratified by gender and age, except for the HIV testing counselors and members of the Rakai Community Advising Board (CAB), resulting in the following categories: females aged 15–24 ( $n = 33$ ) and 25–49 ( $n = 33$ ), males aged 15–24 ( $n = 27$ ) and 25–49 ( $n = 29$ ), HIV counseling and testing counselors ( $n = 12$ ) and CAB members ( $n = 11$ ). CAB members are representatives of study participants, people living with HIV, religious leaders and other community leaders, who serve as liaisons between RHSP and their communities to ensure community concerns and other considerations are shared between researchers and the community. The focus group discussions (FGDs) were conducted in Ddimbo and Malembo communities. Focus group participants were not recruited through RCCS. All members of the CAB were approached by RHSP staff and all agreed to participate. The HIV counseling and testing counselors were conveniently sampled based on availability on the day of the FGD. Males and females who participated in the FGDs were identified and recruited by community mobilizers. Community mobilizers in each of the three fishing communities utilized snow-ball sampling to identify members willing to participate. Recruitment ceased when a sufficient number of participants for each age group had successfully been recruited into each of the FGDs. The only eligibility requirement for these groups was to be a community member of one of the fishing communities.

In-depth interviews (IDIs) were conducted in all three fishing communities with a subset of 50 individuals. Purposive sampling was utilized to ensure that a sufficient number of participants from each of the two age groups (15–24 years and 25–49 years) were included in IDIs. Interview participants were recruited through RCCS. A list of RCCS participants (taken from round 17 of data collection) from the

three fishing communities that met eligibility criteria was generated and used to identify potential participants. Community mobilizers assisted the qualitative team with locating the eligible community members. Sampling was purposive to ensure that a sufficient number of participants from each of the two age groups were included in the study. Recruitment ceased when a sufficient number of participants had been successfully recruited into the study. Eligibility criteria for the female IDI participants included a positive HIV diagnosis and reporting either IPV or alcohol use in the past year. Eligibility criteria for the male participants included reporting both past year alcohol use and IPV.

The FGDs informed the development of the guides for the IDIs. One semi-structured guide was used for the focus groups, which covered several topics aimed at developing community-level information, such as identifying the local customs and norms surrounding drinking behaviors and the perceptions about alcohol use among community members. IDIs explored individual-level information related to a participants' own use of alcohol and their knowledge of alcohol-related risks associated with drinking. The FGDs and IDIs were tape recorded after receiving the participants' consent. The tapes were transcribed and translated from Luganda into English and entered into a word processing program.

### **Data analysis**

Four research assistants thematically coded all interviews and focus group transcripts using NVivo qualitative data analysis software, version 11 (NVivo for Windows, 2012). Interviews were coded to identify themes. While various themes emerged, such as the types of alcohol that are typically consumed and common alcohol consumption patterns, this paper focuses on the reasons why men consume alcohol and the community's perceptions of the impact of alcohol use. Approximately 10% of the data were coded twice between research assistants to ensure consistency in the application of codes. The identification of themes was guided by two theories: the Socio Ecological Model (SEM) and the Time Perspective Theory (TPT). The SEM focuses on how multiple factors can influence a specific outcome, such as drinking behavior. It also increases the understanding of the interplay between individual, interpersonal, community and societal-level influences and highlights potential prevention strategies among them (Krug, Mercy, Dahlberg, & Zwi, 2002). The TPT, theorized by Phillip Zimbardo, asserts that an individual's perception of time is correlated with their likelihood of experiencing a specific health outcome, such as substance abuse (Zimbardo & Boyd, 1999). Individuals who have a future time perspective (i.e., those who can envision a future for themselves and plan for that future) drink less frequently, while those who are unable to envision a future are more likely to have increased alcohol consumption.

### **Results**

A total of 192 people participated in this study. Of the 145 individuals who participated in the focus group discussions, 54% were female ( $n = 77$ ). Only two focus groups were mixed-gender and included CAB members and HIV counselors, while the rest ( $n = 13$ ) comprised of only men or only women. Forty-five percent of focus groups were conducted in Ddimbo landing site and forty three percent were conducted in Malembo. Out of the 50 IDIs, twenty participants were female and thirty were male, with the mean age of participants being 29.2 years. Nineteen IDIs were conducted at the Ddimbo and Malembo landing sites, while the rest took place in Namirembe. Table 1 provides key characteristics of IDI and FGD participants.

In line with previous studies, participants mentioned that fishermen and male adults drink the greatest amount of alcohol within these fishing communities (Sileo et al., 2016), which is also documented throughout Uganda (Kabwama et al., 2016). Overall, it was felt that the fishing villages embody and cultivate a culture of heavy drinking that permeates every facet of life. Drinking was thought to significantly influence how fishing village residents live their personal lives, affect interpersonal relationships and influence individual positioning within society. The notion that "everybody drinks" was widespread.



**Table 1.** Key characteristics of IDI and FGD participants (n = 195).

	IDI n = 50	FGD N = 15 groups n = 143 participants*
<b>Gender</b>	n (%)	n (%)
Male	30 (60%)	66 (46%)
Female	20 (40%)	77 (54%)
<b>Age</b>		
15–24	20 (40%)	60 (42%)
25–49	30 (60%)	83 (58%)
<b>Marital Status</b>		
Single	13 (26%)	73 (51%)
Married	36 (72%)	69 (48%)
Separated	1 (2%)	0 (0%)
Widowed	0 (0%)	1 (1%)
<b>Religion</b>		
Catholic	41 (82%)	82 (57%)
Protestant	5 (10%)	13 (10%)
Muslim	3 (6%)	25 (18%)
Born Again	1 (2%)	12 (9%)
Adventist	0 (0%)	5 (3%)
Anglican	0 (0%)	5 (3%)
<b>Education</b>		
No education	3 (6%)	7 (5%)
Primary (1–7)	35 (70%)	85 (59%)
Secondary (1–6)	11 (22%)**	33 (23%)
Tertiary/University	1 (2%)	18 (13%)
<b>Occupation</b>		
Fisherman/Fish trade	21 (42%)	31 (22%)
Hospitality (Bar/Food)	9 (18%)	15 (10%)
Student	2 (4%)	6 (4%)
Other***	18 (36%)	91 (64%)

\*Demographic information is missing for two focus group participants, one male and one female. Calculations are made with n = 143.

\*\*In IDI group education only included Secondary 1–3

\*\*\* Other includes occupations such as casual laborers, housekeepers, hairdresser

There is alcohol wherever you go. It's hard to go through a lane and you don't find people selling it, it's sold everywhere. – Male (15-24 years old, focus group).

Drinking alcohol started way back at landing sites, it's like a norm. Even when a twelve- year-old earns money, he will go to the bar first. – Female (25–49 years, focus group)

The culture of drinking was reinforced by the excessive availability of alcohol in stores and bars. Participants narrated how national laws to restrict alcohol consumption are not actively enforced. It was most commonly noted that, despite the existence of a minimum drinking age of 18 years, communities oftentimes neglected this policy.

The most important reason is that we don't have rules regulating drinking according to the age. If children found in bars were taken to police or reprehended, no child would go back to a bar. Such a thing is not in our community. – Female (25-49 years old, focus group).

Participants also felt community leaders failed to set examples for community members, either as role models or as enforcers of restrictions.

There are no laws in this community that prevent people from drinking because even the leaders drink. So they can't tell anyone anything. – Female (15-24 years old, focus group).

I used to live in some places where there were laws that all bars have to be closed by midnight. And the bars will be closed. But that is not the same here. Everyone behaves the way they want. There aren't enough authority figures to control anything. – Female (25-49 years old, focus group).



## Social influences on drinking

Social drinking refers to the practice of consuming alcohol in order to be happy and friendly, celebrate social occasions, and have a good time with others (Haberman, 1970; Mulford & Miller, 1960). In this section we share findings on social pressures that influenced men's drinking in particular, and how their social standing as money-making members of society bolstered their drinking habits.

### *Social and carefree/low-responsibility lifestyle*

Community members who participated in this study attributed some of the drinking patterns of fisherman to their lack of domestic and familial responsibilities. Fisherman are often young and not tied down to families. In the absence of responsibilities such as needing to caretake or provide for a family or children, men are free to spend their money in a fun and carefree manner. A common perception was that fishermen spent the majority of their income on alcohol and drinking socially.

Some others say that, "I don't have a child or woman, let me go and drink all my money. The bottle is my wife." – Female (15-24 years old, focus group).

Fishermen participants also narrated how they drank because they could, given their lack of responsibilities and their personal preference of spending money on alcohol as opposed to planning for a future family. This suggests that some men in fishing areas prioritize alcohol over relationships, especially marriage, and that they expend limited thought on having a committed relationship or marriage in their future. In addition to not having outside responsibilities, participants often stated they had left their homes to work on the lake, leaving them without parents or guardians to monitor or control their drinking behaviors.

There are people who don't drink responsibly, reason being that he might not have anyone to take care of, he does not owe anyone anything. He will go and drink all the money and has nothing the next day. – Male (15-24 years old, focus group).

You see the lake will never dry. A farmer on the mainland cannot spend all the money from a sack of groundnuts he has harvested on alcohol. He waits for four months for those ground nuts to grow and then stores them for two months. On top of that he has responsibilities to buy for his wife a gomesi and to pay school fees for children and to buy those clothes and the like. Now most youths in this place do not have such responsibilities. They have no wives, they sleep in lodges so when they get money, they have no one to be accountable to or question how they spend it. – Fisherman (25-49 years old, interview).

### *Social pressures*

Interpersonal relationships (e.g., non-romantic, familial, romantic) were thought to be the cause of some increased pressure to drink in a variety of situations. This was especially common among men, as they felt they needed to drink with their friends in order to fit in, avoid public shame for not drinking (i.e., it was socially expected that men drink), and feel included socially.

You can go to a night club when everyone is holding a Nile or Club beer. In this case you can feel ashamed to hold a Mountain Dew bottle. Because of this you decide to buy a Nile beer such that you can fit in the society. – Male (15-24 years old, focus group).

### *Social standing as "money makers"*

Participants narrated how fishermen spend their days on the lake, catching fish. Upon their arrival to the shore they sell fish to traders and receive money almost immediately. This allows young fishermen a regular income that they have the freedom to spend as they please. Fisherman explained how they frequently spend their money on alcohol and sex. It was commonly perceived among participants that,

compared with a weekly or monthly salary, the pattern of returning from the lake daily and receiving money instantly did not promote money-saving habits. Instead, it was felt that daily access to money through the fishing sector enabled and supported regular alcohol consumption in Rakai.

Remember that fishing is one of the major profitable businesses here, and most fishermen are mainly energetic men and young people [...] If a fisherman happens to get money, he does drink alcohol. He would only stop drinking when he does not have money. – Male (15-24 years old, focus group).

Some fishermen felt that buying large quantities of alcohol was a good way to indicate to a woman that he was financially capable (since he was able to afford such purchases). Thus, publicly purchasing alcohol and highlighting one's wealth was perceived as a strong method for attracting women.

A man would drink too much in order to be recognized by women that he is good at buying too much alcohol and that he has money. – Male (25-49 years old, focus group).

## **Drinking as a coping mechanism**

### ***Escaping stress***

Participants also cited using alcohol as a coping mechanism to escape stressors and to forget about their problems. Stress was associated with "thinking too much" due to a variety of circumstances, such as marital problems or the loss of a loved one. Many described using alcohol as a means to forget their thoughts and induce sleep.

We take alcohol when we have many thoughts. Something might have disturbed you and you decide to take alcohol to get some sleep so that you don't worry a lot. – Male (15-24 years, focus group).

Yes, you may find someone with personal problems and the only way to relieve his or her stress is after drinking alcohol. A person can make a decision saying, "Let me drink in order to relieve my stress." Personally, I lost my father and I don't want to always think about it, so I drink to relieve my stress and then sleep. – Fisherman (15-24 years, interview).

### ***Women's experiences of drinking to cope***

While men often referred to economic stressors, such as unemployment, or marital conflict to explain their drinking behaviors, women focused on other factors, such as finding money for their child's school fees or a failed business as problems that led them to drink. Female participants in particular cited using alcohol to forget about infertility and IPV victimization:

There are people who over drink because they are stressed. I started to over drink because of infertility. I lost my child who was about five years and since then I have failed to get pregnant again. Each time I fall to sleep thinking about that, I drink. – Female (25-49 years, focus group).

I used to take alcohol because I had problems, my husband used to violate me, the women here can be my witnesses. I used to drink in order to sleep but ever since my husband died, I don't drink any more. – Female (25-49 years, focus group).

A number of study participants highlighted that it was less culturally acceptable for women to drink alcohol and that it was less common to find women drinking in excess compared to men. However, participants reported that among women who work as CSWs or participate in transactional sex, drinking is common. Women who reside in or near fishing communities have unique experiences with alcohol, especially those who work around or near bars. Bars serve as locations where these transactions occur, sometimes multiple times by the same client and worker. This is highlighted in participants' experiences with CSWs:

The girls who drink are not many, but they mostly work in bars. That is what is expected of them. You can't work in a bar and not drink. – Female (15-24, focus group).

One comes out of the lake with fish, sells it and gets money. Here, there are people who do commercial sex. He gets a sex worker. He takes her to a bar and they drink and then go for sex and then come back to the bar and drink again. They can drink for about two or three days until the money is finished. – Female (age 25-49 years, focus group).

### ***Limitations of drinking as a coping mechanism***

Although participants described alcohol as a coping mechanism, some recognized that alcohol could only relieve stress temporarily, revealing the limitations of using alcohol to cope with stress and how it could lead to addiction:

The idea of drinking because you have stress does not help you as a person. Because if you go to a bar and drink alcohol because you have many thoughts, still you will get over the hangover and still have those thoughts. You will go back and drink the next day and the other day because you can never stop thinking. – Female (15-24 years, focus group).

### **The socio ecological model and time perspective theory**

The SEM can be applied (Gruenewald, Remer, & LaScala, 2014) to understand alcohol consumption, overall and within the three fishing communities. Emerging themes for “why people drink” align with the four levels of the SEM: individual, interpersonal, community, and societal. Additionally, a “life is short” mentality (e.g., unwillingness to plan for future relationships, work is dangerous) and a belief that “everybody drinks” permeated every SEM level, with interactions across all levels (see Figure 1). The TPT can help frame how a participant’s “life is short” mentality and the cultural acceptance that “everybody drinks,” as it improves the understanding of how people’s perceptions of their future relates to their well-being, health, behaviors and outcomes (Braitman & Henson, 2015; Zimbardo & Boyd, 1999).

Many participants explained they consumed alcohol frequently because they felt their lives were short and uncertain, due either to the dangers of being on the water, the possibility of becoming infected with HIV, their current HIV positive status, or a combination of these factors. This highlights their perception of impending death and risk exposure.

### ***Dangers of being on the water***

Being a fisherman is a dangerous job, as 5,000 people die annually on the water (Okoth, 2015; Opemo, 2018). Both fishermen themselves and those who work with them understand the risks they undertake in this profession. This ultimately influences how participants talk about why they drink and how others justify fishermen’s drinking behaviors.

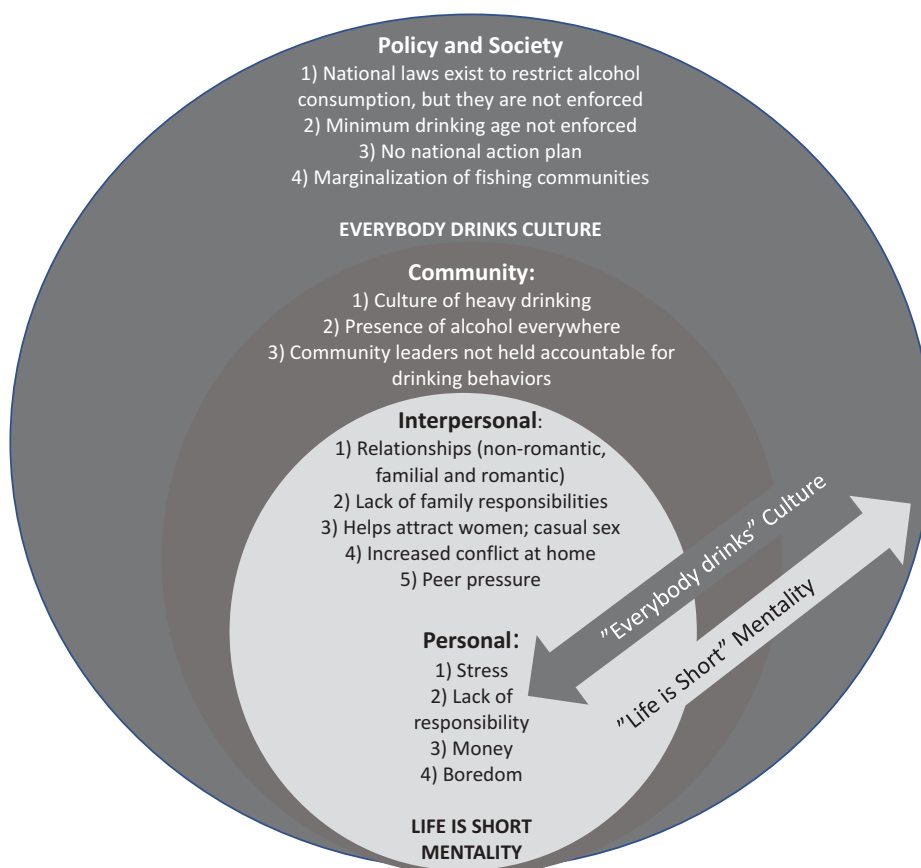
A fisherman always likes to rejoice for each day; he would say, “Supposing I had drowned into the lake in the night, other people would be using my money worth fifty thousand shillings. So, I’d rather spend my money through drinking. – Fisherman (25-49 years, interview).

A fisherman returns from the lake when he is tired, then he starts drinking as a way of celebrating upon returning from the lake safely. – Fisherman (15-24 years, interview).

Fishermen have their own way of thinking because going into the waters is like joining the army. When he goes there, it’s as if they have taken him to the army in that when bullets are fired, the one who survives will say that I am celebrating because I survived. That applies to the lake as well. – Male boat manager (25-49 years, interview).

### ***Death is imminent***

Fishermen expressed a fear that death was unavoidable, either by the nature of their profession or unrelated ailments such as HIV. This hindered their everyday ability to effectively plan for a future. This perspective significantly impacts their health and the behaviors they may engage in, as



**Figure 1.** Adapted version of the SEM, capturing themes highlighted by the TPT, “everybody drinks” and “life is short”, influencing alcohol use and related negative health outcomes in fishing communities in Uganda.

supported by Zimbardo’s TPT (Zimbardo & Boyd, 1999). The “life is short” mentality and the belief that “everybody drinks” suggest that many Ugandans living in fishing villages may lack hope for their future, a result of the contextual factors in which they use alcohol.

They are sick, they do not know when they will die, that is why they drink. He asks himself that if I get money, what will I invest in that I won’t leave behind, that is why they drink. Some of them don’t have children or wives that can talk to them. That is why they use the money that they make to drink and buy prostitutes, the prostitutes gain out of it. When the money gets finished, he goes back to fish. Some of them fall sick and reach an extent of dying when he has nothing. That is why most of them drink. – Female (25-49 years old, focus group).

There is a lot of disease especially among the youth. [...] The youth have that thinking that ‘I will be around today, but I will not be around tomorrow.’ They don’t have anyone to keep encouraging them and tell them that an HIV positive person does not die easily. He says that after all I am already sick, why should I avoid taking alcohol or going for entertainment? – Female (25-49 years old, focus group).

Researchers have previously examined hopelessness as a motivation for alcohol use, finding that alcohol is a common coping mechanism to deal with such a life-perspective (Stewart et al., 2011). Encased within this mentality and belief system are motives for drinking: policy and government officials have no say; lack of familial responsibility or vision for their future; interpersonal peer-pressure; and personal stressors.

Individual level factors that contributed to drinking included stress, lack of responsibility and availability of money; these factors contributed to a “life is short” mentality. Additionally, these factors are consistent with existing literature on alcohol as a coping mechanism for stress and predictors of heavy alcohol use (Gruenewald et al., 2014; Sileo et al., 2016). Many fishermen are without financial obligation (because they are unmarried and childless), while others have such obligations but do not prioritize setting aside their funds for these reasons. They fear losing their lives due to their work or due to HIV/AIDS, thus spending their time and money on alcohol. This mentality has a bottom-up effect on individuals in Uganda: because individuals anticipate early death, they treat other aspects of their lives (e.g., interpersonal relationships, monetary attainment, relationships with leaders and policy) with the same casual and nonpermanent attitude. This starts at the individual level and affects all upper levels of the SEM (see Figure 1).

The second level of the SEM, interpersonal relationships, is highlighted multiple times in the participants’ narratives. Alcohol use impacted participants’ relationships with their peers, with their romantic partners and in their pursuit of sexual relationships (i.e., engaging with CWS). Researchers have previously demonstrated the importance of interpersonal relationships in alcohol consumption. For example, in the fishing community environment many fishermen have left or cut ties with their family for money-making opportunities. Studies have paralleled positive family relations with reduced alcohol use (Nash, McQueen, & Bray, 2005), suggesting that a lack of familial ties may contribute to excessive alcohol use (Nash et al., 2005). Social pressures to drink were mentioned throughout the interviews; social motivators and perceived peer pressure have been shown to determine drinking behaviors (Kuntsche, Knibbe, Gmel, & Engels, 2005, 2006; Livingstone, Young, & Manstead, 2011). Findings from this study confirm that peer pressure substantially contributes to alcohol use in Ugandan fishing communities. Even intimate and sexual relationships are perceived as being affected by drinking, as alcohol consumption was perceived as a means of attracting women. Previous research in Africa indicates that purchasing alcohol for women serves as a means to secure sexual access for men, especially with CSWs and transactional sex (Béné & Merten, 2008; Pearson et al., 2013; Westaway et al., 2007).

Within Ugandan fishing communities, drinking is normalized (i.e., “everybody drinks”). There is a lack of both accountability and community restrictions on alcohol use. Alcohol consumption has manifested itself as a shared and widely accepted practice within the community, facilitating the creation of a drinking culture at landing sites (Livingstone et al., 2011). This manifests itself as a top-down problem, where policies are not implemented, leading the community at-large to normalize heavy drinking and creating a trickle-down effect that influences the expectations one may have on the individual fisherfolk who are drinking. Thus it is possible to see how the detrimental consequences of such a mentality influences every level of the SEM (i.e., policy, community, interpersonal, personal) (see Figure 1). Related studies reinforce our findings that a lack of policy and policy enforcement facilitates heavy alcohol usage, especially in fishing communities (Sileo et al., 2016), ultimately affecting the health, health behaviors and outcomes of a society’s members.

## Discussion

This study contributes to the existing evidence on the social and contextual factors that contribute to excessive alcohol consumption and its negative consequences on health, but focuses on Ugandan fishing communities. Qualitative findings from this study suggest that excessive alcohol consumption in the fishing villages, primarily along the Rakai border, is a direct result of the interaction of various sociocultural, economic, and ecological factors. While researchers have previously applied the SEM to understand excessive alcohol consumption and alcoholism in different settings (Gruenewald et al., 2014), including in Uganda, this is the first time that the TPT has been used in this context. While this study was only conducted in three fishing communities in Uganda, the patterns of drinking observed in this study have been seen in other fishing communities throughout East Africa. It is likely the findings and recommendations presented here are generalizable to similar communities (Kiwanuka et al., 2017; Sileo et al., 2016, 2019; Smolak, 2014). Utilizing the SEM and

TPT models together has allowed us to contextualize problematic drinking behaviors through both time (TPT) and space (SEM). By applying these separate but complementary models, we were able to highlight the ubiquity of heavy alcohol use in fishermen's lives. We were also able to better understand alcohol use among fishermen and how community members experience alcohol individually, interpersonally, within their communities and societally.

## Conclusion

Previous studies have demonstrated the relationship between frequent and heavy alcohol consumption and negative health outcomes in Uganda (K4Health, 2017; Rahav, Wilsnack, Bloomfield, Gmel, & Kuntsche, 2006; Rutakumwa, Weiss, & Seeley, 2014) and the WHO has found internationally that alcohol can increase the likelihood of both experiencing and perpetrating IPV and both transmitting and acquiring HIV (Organization, W. H, 2002; Scott & Kaner, 2014; U.S. Department of Health and Human Services, & U.S. Department of Agriculture, 2015; Zablotska et al., 2009). This qualitative study explores contextual factors leading to high rates of alcohol use within Ugandan fishing sites and the community perceptions that surround alcohol use and its impact on their residents. Global health interventions must address people's reasons for drinking on various levels in order to interrupt the manifestation of excessive alcohol consumption and stress in Ugandan fishing communities. Such interventions must consider individual, interpersonal, social, economic and political circumstances that allow and promote such activities to occur within fishing communities. This work will inform the development and delivery of an alcohol and stress-reduction intervention tailored to the setting and context of the growing and popularization of fishing communities in Uganda.

## Future directions

Although feelings of hopelessness, as highlighted by the "life is short" mentality may significantly undermine alcohol reduction interventions, additional research is needed to assess the relationships between one's perspective on time and their drinking-behavior (Sileo et al., 2016). Efforts to alter fishermen's time perspective and future outlook toward a more future-focused temporality may ultimately reduce their alcohol consumption and lead to decreased instances of stress-related alcohol abuse, acts of violence and risky-behaviors. Studies have shown that Zimbardo's Time Perspective Inventory (ZTPI) can serve as a useful tool for assessing people's perceptions of the future related to well-being and health behavior, including alcohol use and misuse and develop interventions to reduce alcohol consumption (Braitman & Henson, 2015; Kooij, Kanfer, Betts, & Rudolph, 2018; Zimbardo & Boyd, 1999).

Interventions at the individual level will be important to identify approaches that lead to stressors impacting alcohol use and alternative coping mechanisms for stress. Promoting saving mechanisms through establishing accessible banks within the fishing communities or creating community saving activities, such as table banking, may reduce people's likelihood of spending their income on alcohol (Sileo et al., 2016). This could impact interpersonal relationships by strengthening relationships between community members and create a sense of community unrelated to alcohol consumption. Past research has successfully demonstrated that microfinancing groups geared toward female empowerment work in sub-Saharan African countries (Heise & Kotsadam, 2015; Karlan, Savonitto, Thuysbaert, & Udry, 2017) and could be implemented in Ugandan fishing communities successfully to provide financial opportunities and increased stability. Other studies indicate that community closeness reduces frequency of alcohol consumption by up to 50%, showing that community-based alcohol reduction programs may be an appropriate intervention within this population if focused on promoting alternative coping strategies, saving mechanisms and strengthening community ties (Bryden, Roberts, Petticrew, & McKee, 2013).

While Uganda does not currently have a national action plan to reduce alcohol consumption, the government has recently increased efforts to combat alcohol abuse (Krug et al., 2002; Organization, W. H, 2002). These efforts include restricting the sale of alcohol to take place during specific times; fines for those who sell alcohol to under-age patrons; and announcing a future ban of sachets (small plastic bags of liquor

that are widely used among fisherfolk) (Ndanabangi, 2016; Ssali, 2016). If implemented and enforced, these policy changes could positively impact patterns of alcohol consumption. However, they should be accompanied with localized interventions that address contextual factors related to alcohol consumption.

## Limitations

While this work provides insight for community perceptions surrounding alcohol use and its related negative health consequences, its qualitative nature presents several limitations. First, the study included members of only three fishing communities in Uganda. Although this is a significant group, their perspectives may not represent all fishing communities in Uganda. Second, social desirability in focus groups may have swayed participants ability to respond honestly, as many identified peer pressure as a contributing factor for alcohol use. Social expectations of frequent alcohol use may have caused male participants to present their own consumption as higher than their actual use (and similarly, could have resulted in underreporting of consumption among women). Finally, people's perceptions of the issues highlighted in their paper (i.e., alcohol use and its related negative health outcomes) may not entirely capture the community's perception. For example, though most community members acknowledge that excessive alcohol consumption is highly prevalent, the exact prevalence of alcohol consumption and what constitutes "excessive drinking" in each fishing community remains unknown and requires further investigation.

## Conflicts of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this article.

## Disclaimer

The views expressed in this article are our own and are not an official position of our institutions or funders.

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